



**QUEEN'S
UNIVERSITY
BELFAST**

Coding scheme for the annotation of dynamic empathising behaviour in a social interaction

Spencer, C., & McKeown, G. Coding scheme for the annotation of dynamic empathising behaviour in a social interaction

Queen's University Belfast - Research Portal:

[Link to publication record in Queen's University Belfast Research Portal](#)

Publisher rights

© 2017 The Authors.

General rights

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact openaccess@qub.ac.uk.

Empathising behaviour in a dyadic social interaction: a dynamic process of cognitive and affective alignment

Christine Spencer¹ and Gary McKeown²

Abstract—Building on the recent argument that greater empirical focus should be placed on the inherently interpersonal and dynamic nature of empathy (Main, Walle, Kho & Halpern, 2017), we propose that, in the context of a dyadic social interaction, empathising behaviour is evident in the form of an observable effort displayed by each interactant to align both cognitively, and affectively, with their partner. The results of an empathy-definition rating study offered support for this operationalisation. In a second study, eight hours of dyadic social interactions were annotated for empathising behaviour using this definition to create a set of 70 clips, which were then subjected to a crowdsourced validation experiment. In this validation approach, the combined impressions of many human observers, assumed to be natural experts in empathy-recognition, were relied on to corroborate when empathy was happening. Each clip was rated twice for empathising behaviour by at least 25 observers who were either provided with the definition of empathy as alignment, or who were not provided with a definition, allowing empathy to be rated freely. The results of the experiment indicated that empathy rated according to the annotation scheme was strongly associated ($r(68) = .63, p < .001$) with free-rated perceived empathising behaviour. Therefore, we present a novel operationalisation and coding approach which may be useful to researchers interested in examining the dynamics of live, unfolding empathising behaviour.

I. EMPATHIC ALIGNMENT CODING SCHEME

High effort of an interactant to empathically align with partner

High effort was annotated when an interactant appeared to well understand how their interaction partner was thinking and feeling, and responded in an appropriate emotional way. Specifically, interactants who were making an effort to align with their partner:

- Appeared "to be on the same wavelength" as their partner in a cognitive sense
- Demonstrated an understanding of what their partner was communicating or implying
- Displayed mind-reading behaviours, such as providing contextually-relevant information, finishing his/her partners sentences, and/or sharing suggestive "looks", gestures and coughs, as well as "inside jokes" or comments.
- Displayed a genuine interest in their partner, by appearing alert and communicatively engaged in the conversation.
- Displayed appropriate listenership behaviours such as the use of encouraging back-channelling vocal noises, and well-timed interruptions.
- Provided appropriate responses to emotional information provided by their partner.
- Were attuned to the emotional cues of their partner.
- Acutely picked up on the changing emotional charge of the situation.
- Responded appropriately to their partner to indicate an understanding of the emotional significance of the situation or information shared by their partner.
- Displayed an effort to avoid conflict with their partner by agreeing with them, or by acknowledging their point of view.

High dyadic empathic alignment

High dyadic empathic alignment was defined as occurring when both interactants appeared to be making an active effort to cognitively and affectively align with each other. These interactions were characterised by:

- A general smoothness and ease of conversational flow

¹Christine Spencer, School of Psychology, Queen's University Belfast

²Gary McKeown, School of Psychology, Queen's University Belfast

- Few awkward silences, with active recovery attempts being made when silences occurred.
- High levels of rapport
- Greater incidences of "shared" or "special" bonding moments.
- Higher levels of overall non-verbal and emotional expressivity.

Low effort of an interactant to empathically align with partner

Low effort was annotated when an interactant did not appear to well understand how their interaction partner was thinking and feeling, and did not respond in an appropriate emotional way.

Specifically, interactants who were not making an effort to align with their partner:

- Did not appear "to be on same wavelength" as their partner in a cognitive sense
- Did not demonstrate a thorough understanding of what their partner was communicating or implying
- Displayed fewer mind-reading behaviours, such as providing contextually-relevant information, finishing his/her partner's sentences, and/or sharing suggestive "looks", gestures and coughs, as well as "inside jokes" or comments.
- Did not display a strong genuine interest in their partner, by appearing distracted, bored or not very communicatively engaged in the conversation.
- Engaged in fewer listenership behaviours, such as the use of encouraging back-channelling vocal noises, and interrupted their partner in a way which disrupted conversational flow.
- Did not always provide appropriate responses to emotional information provided by their partner.
- Were not always well-attuned to the emotional cues of their partner.
- Did not always acutely pick up on the changing emotional charge of the situation.
- Did not always respond appropriately to their partner to indicate an understanding of the emotional significance of the situation or information shared by their partner.
- Did not always display an effort to avoid conflict with their partner by agreeing with

them, or by acknowledging their point of view.

Low dyadic empathic alignment

Low dyadic empathic alignment was defined as occurring when neither interactant appeared to be making an active effort to cognitively and affectively align with each other. These interactions were characterised by:

- An effortful conversational flow, with a general lack of smoothness
- Greater incidences of awkward silences with less effort at recovery.
- Lower levels of rapport
- Few to no "shared" or "special" bonding moments
- Lowered levels of overall non-verbal and emotional expressivity

REFERENCES

- [1] Main, A., Walle, E. A., Kho, C., & Halpern, J. (2017). The Interpersonal Functions of Empathy: A Relational Perspective. *Emotion Review*, 209228. <https://doi.org/10.1177/1754073916669440>